

ENGINEERING CHANGE NOTICE
DART AEROSPACE LTD

| | | | | |
|--------------------------------------|----------------------|------------------------|------------------------|---------------|
| Date: 19.05.1 | Job No.: RB18-AIRBUS | ADR Yes/No: N | ADR Date: <i>map</i> | ECN #: 19-707 |
| Product No.: DART TOOLING EUROCOPTER | | Created By: VM | Approved By: <i>VH</i> | |
| Product Name: SPANNER | | Checked By: <i>map</i> | | |

Reason for Change:
FIT ISSUE

Documents Released:

RBE1X36-176-779 REV C

W Bom Route updated

IF APPLICABLE: NCR: _____ PAR: _____ CAR: _____ CIR: _____ URF: 19-707

PAPERWORK UPDATE ☐ PARTS MUST COMPLY ☒ PREVIOUS PARTS SATISFACTORY ☐

| # | Quality Assurance / Customer Support Actions | Reqd | Resp | Notes | Complete |
|---|--|------|------|-------|----------|
| 1 | Notify Previous Customers | N | | | |
| 2 | Notify Airbus | N | | | |
| 3 | Notify Leonardo | N | | | |
| 4 | Manufacturing Licensing Agreement Update | N | | | |

| # | Engineering Actions | Reqd | Resp | Notes | Complete |
|----|--|------|------|-------|----------|
| 5 | Required Documents/Drawings/Item ID's Under Review (URF) | N | | | |
| 6 | Update Master Document List (MDL) | N | | | |
| 7 | Update Document Record (DR) | N | | | |
| 8 | Update Product Compatibility Matrix | N | | | |
| 9 | Notify TC / FAA of Change (eg. ICA, 8110-3) | N | | | |
| 10 | | N | | | |

| # | Document Control Actions | Reqd | Resp | Notes | Complete |
|----|--|--------------|---------------|------------|---------------------|
| 11 | Move / Update Electronic Files / Design Journal | Y | MD | | <i>map 19.05.02</i> |
| 12 | Update Product Specification Files (Bluefiles) | N | | | |
| 13 | Update Approved/Preliminary Dwg PDF Files | Y | MD | | <i>map 19.05.02</i> |
| 14 | Update Product Development Summary (STC applications) | N | | | |
| 15 | Update QSI 021 (TC/FAA STC) and/or STC Approval List | N | | | |
| 16 | Create/Update Parts / STC Database | Y | MD | | <i>map 19.05.02</i> |
| 17 | Update / Verify Authorized Release Certificate Database | Y | MD | <i>map</i> | <i>map 19.05.02</i> |
| 18 | Create / Update Change Record Form / Item Card Database | Y | MD | | |
| 19 | Create / Update Packaging Process Plan (PPP) | N | | | |
| 20 | Red Decals required on Packaging Process Plan (PPP)? | N | | | |
| 21 | Update Controlled Supplier Documents (Qpulse) Database | N | | | |
| 22 | Update Grey Project Binder / Electronic Project Folder | N | | | |
| 23 | Update D-Part / M-Drawing / DSI / DEO Master Binders | N | | | |
| 24 | Update "Royalty Paid to" attribute (Parts sold under Dart USA STC's) | N | | | |
| 25 | | | | | |

Description / Action:

STOCK NEED TO BE CHECK TO HAVE THE SAME DIMENSION AS REV C
RELEASE RBE1X36-176-779 REV C DRAWING
PLACE RBE1X36-176-779 REV 2 IN SUPERCEED FOLDER
CLOSE 19-707 URF
FINISH AND MATERIAL CAN BE PER REV 2 (STOCK) ✓

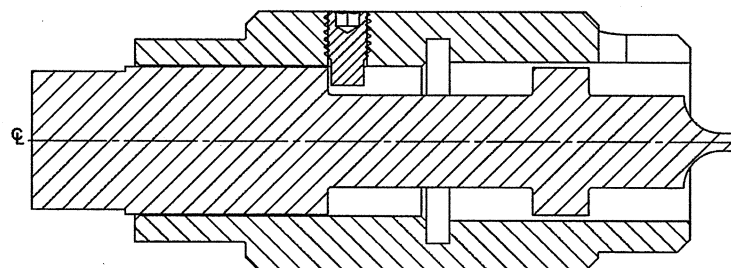
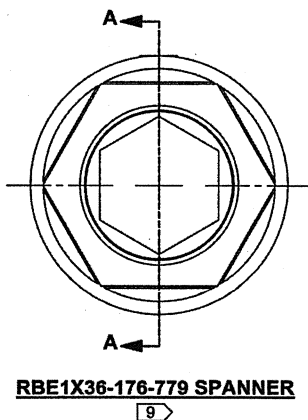
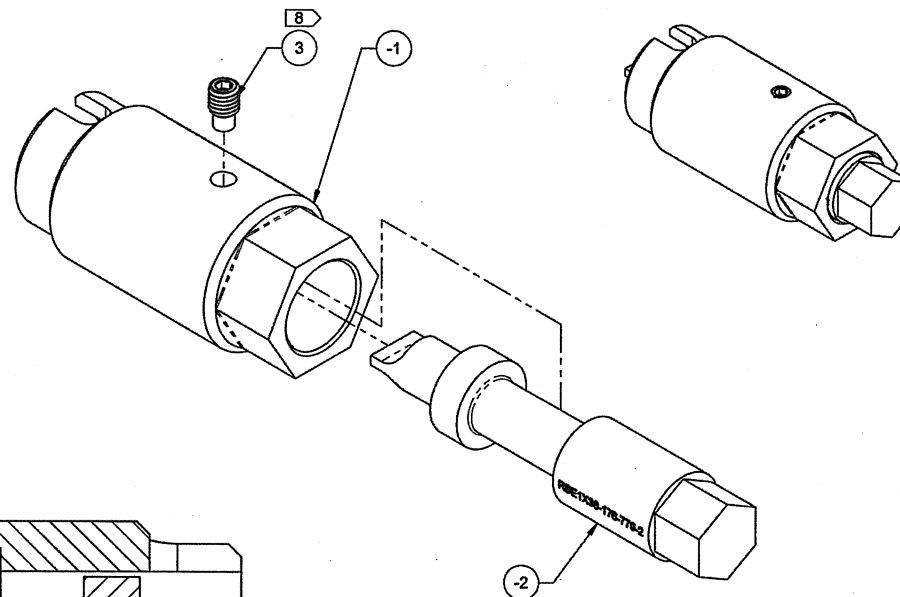
*Job 193927 (x1)
needs to be checked
dims per RevC*

Job Not

started

ECN Verified & Complete: _____ Date: _____

| ITEM # | QTY | PART # | PART TITLE |
|--------|-----|-----------------------------|---|
| -1 | 1 | RBE1X36-176-779-1 | SLEEVE |
| -2 | 1 | RBE1X36-176-779-2 | DRIVER |
| 3 | 1 | McMaster#92905A114 OR EQUIV | STEEL EXTENDED-TIP SET SCREW M5 X 0.8mm X 8mm LG. |

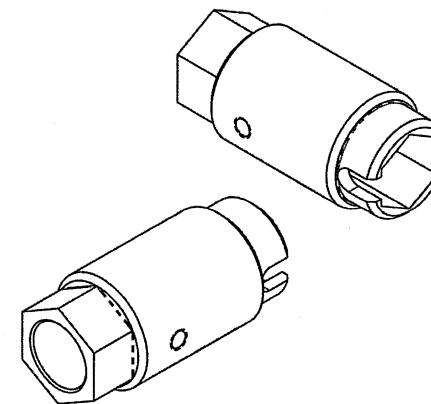
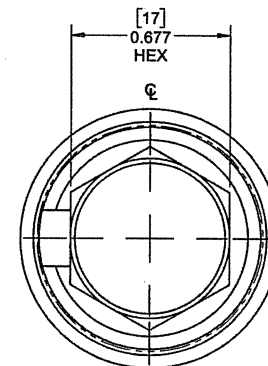


SECTION A-A



NOTES:

- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A
- 4) TOLERANCES: X.X = $\pm 0.1"$ / $\pm 1^\circ$
X.XX = $\pm 0.01"$ / $\pm 0.5^\circ$
X.XXX = $\pm 0.005"$ / $\pm 0.1^\circ$
X.XXXX = $\pm 0.0005"$ / $\pm 0.05^\circ$
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = $\pm 0.005"$
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) IDENTIFICATION: N/A
- 7) ASSEMBLE AS SHOWN
- 8) ASSEMBLE ITEM 3 SO ITEM -2 ROTATES AND SLIDES FREELY
- 9) THE TOOL ASSY MUST BE PACKAGED WITH A DESICCANT BAG INTO A TIGHT FITTING SEALED PLASTIC BAG

| | | | | | |
|------------|-------------|---|--------------|--------|----|
| C | | SEE PREVIOUS PDFs FOR OLDER REVs TEMPLATE UPDATED PER DART HAWKESBURY STANDARDS ITEM -1 MATERIAL 4140/4142 RC 44-48 CHANGED FOR H13 RC 48-52, MIN RELIEF ADDED, R0.008 MAX 7 PL ADDED, ENGRAVING S/N AND MADE IN USA REMOVED, DIMENSION .840 CHANGED FOR 0.840 $\pm 0.002"$, DIMENSION .238 CHANGED FOR 0.238 ± 0.005 ± 0 , DIMENSION .947 CHANGED FOR 0.947 ± 0.005 , DIMENSION 0.02 X 45.0° CMF 2 PL ADDED, DIMENSION .390 CHANGED FOR 0.390 $\pm 0.001"$ 2 PL, ITEM -2 FINISH BLACK OXIDE CHANGED FOR ZINC PLATE TYPE 2, DIMENSION .630 CHANGED FOR 0.630 $\pm 0.002"$, DIMENSION R.015 CHANGED FOR R0.02, DIMENSION .400 CHANGED FOR 0.40, DIMENSION 3.036 CHANGED FOR 3.036 REF. ADDED 0.25 2 PL DIM | | 19-707 | VM |
| REV. | DESCRIPTION | ECN # | BY | | |
| DESIGN | VM | DART AEROSPACE LTD | | | |
| DRAWN | VM | HAWKESBURY, ONTARIO, CANADA | | | |
| CHECKED | KPT | TOOL PART # | REV. C | | |
| MFG. APPR. | JFC | RBE1X36-176-779 | SHEET 1 OF 3 | | |
| APPROVED | WJP | TITLE | SCALE | | |
| | | SPANNER | NTS | | |
| DATE | 5/1/2019 | COPYRIGHT © 2019 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. | | | |



1) MATERIAL: H13
2) HEAT TREAT: 48-52 Rc
3) FINISH: BLACK OXIDE PER MIL-C-13924 CLASS 1 THEN APPLY A THIN LAYER OF OIL / CPC PER MIL-PRF-16173 GRADE 3 CLASS 1 OR MIL-C-81309 TYPE III OR MIL-C-23411A OR MIL-PRF-81309 AND WIPE OFF EXCESS
4) TOLERANCES: X.X = $\pm 0.1"$ / $\pm 1^\circ$
X.XX = $\pm 0.01"$ / $\pm 0.5^\circ$
X.XXX = $\pm 0.005"$ / $\pm 0.1^\circ$
X.XXXX = $\pm 0.0005"$ / $\pm 0.05^\circ$
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = $\pm 0.005"$
5) UNITS: INCHES UNLESS OTHERWISE NOTED
6) REMOVE ALL SHARP EDGES AND BURRS
7) IDENTIFICATION: MACHINE ENGRAVE OR DOT MARK T/N, "RBE1X36-176-779", AS SHOWN
8) THE TOOL ASSY MUST BE PACKAGED WITH A DESICCANT BAG INTO A TIGHT FITTING SEALED PLASTIC BAG

| | | | |
|---------------|---|---|---|
| DESIGN | VM | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA TOOL PART # RBE1X36-176-779 TITLE SPANNER COPYRIGHT © 2019 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. ANY IT IS BY THE USER OR ANYONE THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT | REV. C |
| DRAWN | VM | | SHEET 2 OF 3 |
| CHECKED | KPT | | SCALE |
| MFG. APPR. | JEC | | NTS |
| APPROVED |  | |  |
| DATE 5/1/2019 | | | |

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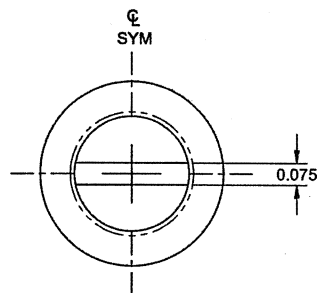
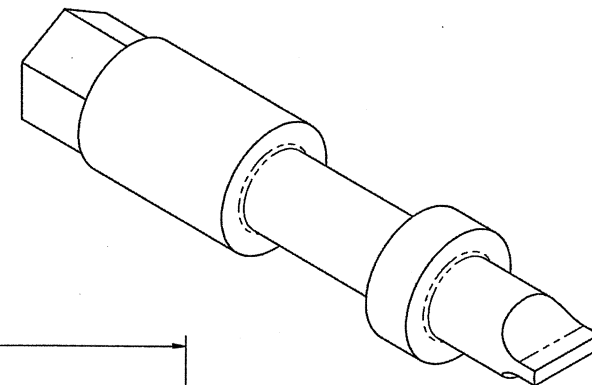
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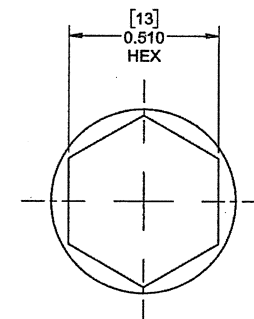
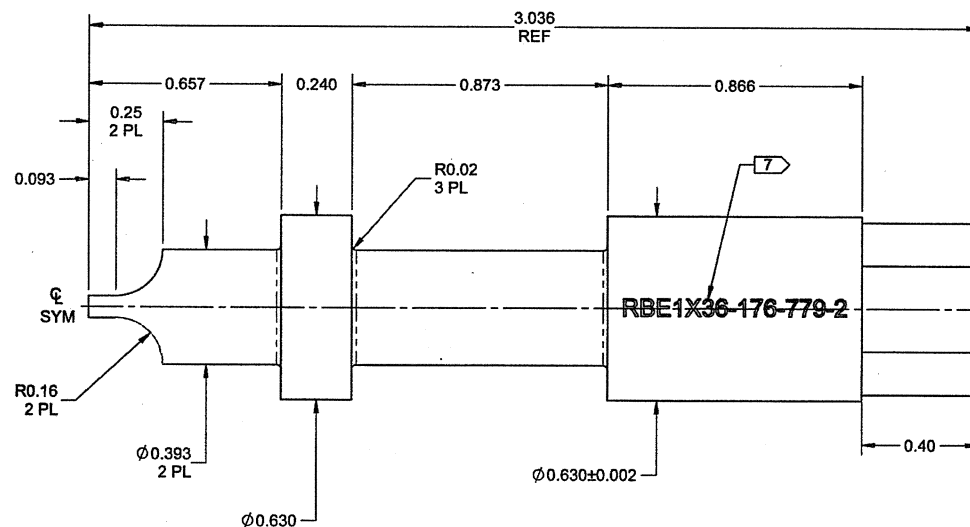
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RBE1X36-176-779-2 DRIVER

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NOTES:

- 1) MATERIAL: H13
- 2) HEAT TREAT: 48-52 Rc
- 3) FINISH: ZINC PLATE (YELLOW OR BLACK) PER ASTM B633 TYPE 2 CLASS 2
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
 X.XX = +/- 0.01" / +/- 0.5°
 X.XXX = +/- 0.005" / +/- 0.1°
 X.XXXX = +/- 0.0005" / +/- 0.05°
 PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) REMOVE ALL SHARP EDGES AND BURRS
- 7) IDENTIFICATION: MACHINE ENGRAVE OR DOT MARK P/N, "RBE1X36-176-779-2", AS SHOWN
- 8) THE TOOL ASSY MUST BE PACKAGED WITH A DESICCANT BAG INTO A TIGHT FITTING SEALED PLASTIC BAG

| | | | |
|------------|----------|--|--------------|
| DESIGN | VM | DART AEROSPACE LTD | |
| DRAWN | VM | HAWKESBURY, ONTARIO, CANADA | |
| CHECKED | KPT | TOOL PART # | REV. C |
| MFG. APPR. | JFC | RBE1X36-176-779 | SHEET 3 OF 3 |
| APPROVED | VJP | TITLE | SCALE |
| | | SPANNER | NTS |
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